

U.S.S.R. COMPUTATIONAL
MATHEMATICS AND
MATHEMATICAL PHYSICS

VOLUME 11, 1971

PERGAMON PRESS

OXFORD : NEW YORK : BRAUNSCHWEIG

U.S.S.R. COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS

Cover-to-cover translation of
Zhurnal vychislitel'noi matematiki i matematicheskoi fiziki
Published bi-monthly by Pergamon Press

HONORARY EDITORIAL ADVISORY BOARD

R. A. BROOKER (<i>Manchester</i>)	A. S. HOUSEHOLDER (<i>Oak Ridge</i>)
L. FOX (<i>Oxford</i>)	G. F. J. TEMPLE (<i>Oxford</i>)
D. C. GILLES (<i>Glasgow</i>)	A. THOM (<i>Oxford</i>)
J. H. WILKINSON (<i>N.P.L., Teddington</i>)	

Scientific Translation Editor:

R. C. Glass, M.A., M.Sc.,
The City University, St. John Street, London, E.C.1.

Translators: J. Berry and D. E. Brown

Publishing, Subscription and Advertising Office:

Pergamon Press Ltd., Headington Hill Hall, Oxford OX3 0BW

Annual subscription rate £66 (\$165)

*Subscriptions are only serviced after payment has been received and
are not accepted for less than one year.*

Orders should be sent to the distributors at either of the following addresses:

Headington Hill Hall, Oxford OX3 0BW

Maxwell House, Fairview Park, Elmsford, N.Y. 10523

Microform Subscriptions & Back Issues

Current subscriptions on microfiche and microfilm, and back files on
microfilm as well as back issues in the regular editions of all
previously published volumes are available from our sole
distributor, Microforms International Marketing Corporation Inc.
(MicroMark) at the most convenient address:

Cowper House, Olney, Bucks., England
Fairview Park, Elmsford, New York 10523, U.S.A.

Copyright © 1972 Pergamon Press Ltd.

PUBLISHED BY

PERGAMON PRESS LTD

OXFORD : NEW YORK : BRAUNSCHWEIG

LIST OF CONTENTS

Number 1

	PAGE
B. T. POLYAK: The convergence rate of the penalty function	1
YU. M. DANILIN and B. N. PSHENICHNYI: A minimization method without the calculation of derivatives	13
V. A. VINOKUROV: General properties of the error of the approximate solution of linear functional equations	26
YU. I. KHUDAK: The convergence of regularizing algorithms	36
L. ALEKSANDROV: The Newton-Kantorovich regularized computing processes	46
B. L. GRANOVSKII: The sufficiency of random quadratures of Gaussian type	58
B. M. BUDAK and E. M. BERKOVICH: Optimal control problems for differential equations with discontinuous right sides	67
A. I. PROPOI: On the theory of maximin problems	87
P. A. NEPOMYASCHII: A method of solving the time-optimal problem	106
YU. P. BOLGAEV: Construction by Chaplygin functions of a uniform approximation of the solution of an equation with a small parameter coefficient of the derivative	129
G. P. ASTRAKHANTSEV: A finite difference method for solving the third boundary value problem for elliptic and parabolic equations in an arbitrary region. Iterative solution of finite difference equations. I	141
A. A. ABRAMOV and A. N. GAIPOVA: On the numerical solution of some sets of differential equations for problems of Stefan's type	162
V. P. GORELOV and V. I. YUFEREV: Solution of the single-velocity neutron transport equation in multilayer plane and spherical symmetric systems	171
N. I. DOINIKOV and A. S. SIMAKOV: Numerical simulation of linear magnetostatic fields	182
N. A. TIKHONOV: Travelling waves in a non-linear medium and their use for determining the properties of the medium	190
V. M. REPIN: A numerical method for solving the problem of electromagnetic coupling of cavities via a slot	200
V. I. IVANOV: Uniform asymptotic behaviour of the field produced by plane wave reflection at a convex cylinder. I	216
A. KH. OSTROMOGIL'SKII: On the uniqueness of the solution of certain inverse problems	233
O. M. BELOTSEKOVSKII and YU. M. DAVYDOV: A non-stationary "coarse particle" method for gas-dynamical computations	241
V. N. DIESPEROV and O. S. RYZHOV: On uniform flow at transonic speeds round finite bodies	272
N. A. ARKHANGEL'SKII: An algorithm for the numerical solution by the mesh method of the cylindrical blast problem, allowing for back pressure	289
A. P. BYRKIN: Numerical computation of a chemically non-equilibrium laminar boundary layer in an axially symmetric hypersonic jet at high air-braking temperature	308
S. A. ABRAMOV: Operations on certain expressions	322
A. A. BELOLIPETSKII: An elementary proof of the theorem on the convex hull of a set of cycle matrices	335
V. A. MOROZOV: Of an effective numerical algorithm for constructing pseudo-solutions	339
YA. M. ZHILEIKIN: On the error in the approximate evaluation of integrals of rapidly oscillating functions	344
V. P. IVANOV: On an inverse problem on diffraction at a periodic or doubly periodic grating	349
N. T. STEL'MASHUK: Construction of functionally invariant solutions of Maxwell's equations	357
A. A. ABRAMOV: On the boundary conditions at a singular point for linear ordinary differential equations	363
Book Reviews	368

Number 2

	PAGE
V. A. DAUGAVET: Uniform approximation of a function of two variables, tabulated as the product of functions of a single variable	1
V. S. BRUSOV and S. A. PIYAVSKII: A computational algorithm for optimally covering a plane region	17
V. F. DEM'YANOV: Minimization of a convex max-min function—I	28
F. P. VASIL'EV and R. P. IVANOV: On approximate solution of the time-optimal problem in Banach spaces with constraints on the phase coordinates	45
R. P. FEDORENKO: The approximate solution of variational problems with non-differentiable functionals	68
A. V. MEZENTSEV: A direct method in linear differential games with different constraints	86
N. I. GRACHEV and YU. G. EVTUSHENKO: A numerical method for solving minimax problems	97
A. A. SAMARSKII and I. V. FRYAZINOV: On finite-difference schemes for solving the Dirichlet problem for an elliptic equation with variable coefficients in an arbitrary region	109
S. I. SERDYUKOVA: Oscillations which occur in the numerical computation of the discontinuous solutions of differential equations	140
V. I. LEBEDEV and S. A. FINOGENOV: Ordering of the iterative parameters in the cyclical Chebyshev iterative method	155
G. P. ASTRAKHANTSEV: An iterative method of solving elliptic net problems	171
YU. P. POPOV: Calculation of electric circuits in magnetohydrodynamic problems	183
O. S. RYZHOV and E. D. TERENCEV: Theory of the high-entropy layer in hypersonic flows	197
V. I. TSURKOV: Gas-dynamical effects connected with unboundedness of the solutions of quasilinear systems	218
E. G. KOLENICHENKO: Integration of the kinetic equation for rarefied polyatomic gases	230
S. S. LAVROV: Linguistic basis of computer applications	237
 Short Communications	
B. ALIEV: Estimation of a regularization method for integral equations of the second kind on a spectrum	246
A. B. PEVNYI: Differentiation of a maximin function	253
I. V. FRYAZINOV: A high-order accuracy scheme for the solution of the third boundary value problem for the equation $\Delta u - qu = -f$ in a rectangle	260
M. I. VOLCHINSKAYA: An iterative scheme for solving a quasilinear heat conduction equation	264
M. DRYYA: Difference schemes with a splitting operator for systems of first-order hyperbolic equations	268
I. I. KOCHETOV and A. KH. RAKHMATULINA: Some features of the problem of classical scattering at a non-monotonic potential	275
I. S. SLESAREV and A. M. SIROTKIN: Use of variational functionals with variable boundaries for constructing approximate methods of solving the neutron transport equation	281
Book Review	289

Number 3

V. A. MOROZOV: Theory of splines and the problem of stable computation on the values of an unbounded operator	1
O. O. KARMA: Asymptotic error estimates for the approximate eigenvalues of holomorphic Fredholm operator functions	20
A. V. DZHISHKARIANI: On the stability of approximation methods of the variational type	32
B. M. BUDAK and E. M. BERKOVICH: On the approximation of extremal problems. I	45
R. P. IVANOV: An optimality criterion and an associated iterative method for solving time-optimal problems	67

	PAGE
V. V. MOROZOV: On a way of forming coalitions	85
S. A. ORLOVSKII: Matrix games with forbidden situations	101
I. N. ZIMIN and YU. P. IVANILOV: Solution of network planning problems by reducing them to optimal control problems	113
A. A. SAMARSKII and I. V. FRYAZINOV: On the convergence of a locally one-dimensional scheme for solving the multidimensional equation of heat conduction on non-uniform meshes	125
M. DRYA: Convergence properties in C inside a region for finite difference schemes with a splitting operator as applied to parabolic systems	145
A. I. VORONKOVA: Solution by Green's mesh function of the first boundary value problem for the biharmonic equation in a half-strip	156
G. P. ASTRAKHANTSEV: The finite difference solution of the third boundary value problem for elliptic and parabolic equations in an arbitrary domain. Iterative solution of the difference equations. II	168
S. K. GODUNOV and U. M. SULTANGAZIN: The dissipativity of Vladimirov's boundary conditions for a symmetric system of the method of spherical harmonics	183
V. M. ASTAPENKO: Asymptotic behaviour of the solutions of problems of the diffraction of long plane waves at periodic gratings and corrugated surfaces	203
V. N. KOSHPARENOK and V. P. SHESTOPALOV: Diffraction of a plane electromagnetic wave by a circular cylinder with a longitudinal slot	222
V. M. BORISOV, V. G. MARKOV and S. F. PALILOVA: Steady flow of a suspension with equal phase densities in a tube	244
Short Communications	
YU. I. MOKIN: Discrete analog of the multiplier theorem	253
A. F. POTAPOVA: Acceleration of the convergence of the optimum gradient method	258
YA. I. AL'BER: The problem of the minimization of smooth functionals by gradient methods	263
YU. V. VAISLEIB: Asymptotic representations of incomplete cylinder functions	273
V. F. DEM'YANOV: Minimization of convex maximum function. II	277
A. F. SHAPKIN: Stochastic version of Adam's method	285
G. M. VAINIKKO: Convergence of quadrature-difference methods for linear integro-differential equations	292
V. M. PASKONOV: Difference schemes on a self-organizing set of calculated points in two-dimensional simply connected domains of arbitrary form	302
N. N. KALITKIN and L. S. TSEREVA: A computer method of computing ionization	311
S. A. DENISIK, S. N. LEBEDEV and YU. G. MALAMA: A Check of a non-linear scheme for the Monte Carlo method	314
V. A. LYUL'KA: Interaction between solid particles transported by a viscous incompressible fluid	317
V. A. GERMAN and I. M. SOBOL: The use of constant density surfaces for generating multivariate random variables	323
Letters to the Editor	
M. G. KHATSKEL: Comments on a paper by S. A. Piyavskii "A method of solving boundary-value problems"	327
V. S. RESHETNIKOV: A supplement to the Runge-Kutta method	329
Book Reviews	330

Number 4

A. G. SIGALOV: The continuous descent equation for a quadratic form of a semibounded operator on the unit sphere	1
R. G. MUKHARLYAMOV: Solution of systems of non-linear equations	24
V. G. SOLOGUB: Solution of an integral equation of the convolution type with finite limits of integration	33

	PAGE
B. T. POLYAK: Convergence of methods of feasible directions in extremal problems . . .	53
B. M. BUDAK and E. M. BERKOVICH: Approximation of extremal problems—II. . .	71
R. P. FEDORENKO: Maximum principle for differential inclusions (necessity) . . .	89
B. E. FEDUNOV: Optimality conditions in some control problems with random perturbations	100
A. G. SUKHAREV: Optimal strategies of the search for an extremum . . .	119
P. I. MONASTYRNYI: The pivotal condensation method for second-order systems . . .	138
G. SHTOIAN: Stability of additive difference schemes to the boundary data . . .	149
R. D. LAZAROV: Difference schemes for the second boundary value problem of elasticity theory for domains with curvilinear boundaries . . .	166
A. G. SVESHIKOV and A. S. IL'INSKII: A direct method for problems of diffraction by a locally inhomogeneous body . . .	180
N. A. STRELKOV: Simplicial extensions of mesh functions and their application to the solution of problems of mathematical physics . . .	190
D. A. CAUGHEY: Wave resistance in supersonic ideal gas flow in nonlinear theory . . .	205
E. KH. TYUGU: A computational problem solver . . .	216
E. A. TRAKHTENGERTS and A. S. SHUMEI: Syntactic analysis of languages generated by single-valued precedence grammars . . .	232
Short Communications	
N. S. BAKHVALOV: On the optimality of linear methods for operator approximation in convex classes of functions . . .	244
V. A. MOROZOV: On optimality of the discrepancy criterion in the problem of computing the values of unbounded operators . . .	250
A. S. YUDINA and P. I. KUZNETSOV: Asymptotic representation of Lommel functions of two real variables . . .	258
YU. M. DANILIN: Estimation of the efficiency of an absolute-minimum-finding algorithm . . .	261
R. P. IVANOV: On an iterative method for solving the time-optimal problem . . .	268
YU. P. POPOV: On a boundary value problem for a parabolic equation . . .	278
S. BUDNYAM, E. P. ZHIDKOV, I. N. IVANOV and E. A. PEREL'SHTEIN: The stationary state of an electron ring in an external magnetic field . . .	286
V. V. DYAKIN and V. P. SHIROKOVSKII: Convergence rate of the method of associated plane waves in electron spectra calculations . . .	291
V. I. TSURKOV: On a similarity solution of the equations of hydrodynamics . . .	296
YU. M. DAVYDOV: Calculation by the "coarse particle" method of the flow past a body of arbitrary shape . . .	304
M. M. GOLOMAZOV: Supersonic dissociating gas flow past a blunt body at a finite angle of attack . . .	313
S. A. ABRAMOV: On the summation of rational functions . . .	324
A. A. KRAPILOV, YU. I. KSENOFONTOV and V. L. LEITES: Realization of an ALGOL-60 type language on the M-220 computer . . .	331
S. M. ALEKSEEVA and O. G. ALEKSEEV: An algorithm for determining the shortest path on a network graph . . .	336
Book Review . . .	346

Number 5

	PAGE
V. A. VINOKUROV: On the regularizability of discontinuous mappings . . .	1
D. V. SHAPOT: The construction of orthogonal projections of point sets specified by a system of inequalities . . .	22
M. M. AGREST: Bessel function expansions of incomplete Lipschitz-Hankel integrals . . .	40

Vol.
11
1971

	PAGE
G. M. ADAMENKO, R. GABASOV and A. A. EDINOVICH: Minimization by second-order methods of functions of finite number of variables	55
E. M. BERKOVICH: The approximation of two-stage stochastic extremal problems	69
V. A. GORELIK: Games with similar interests	89
N. P. NAUMOV: A quantitative method for solving problems of linear dynamic programming	105
YU. P. BOGLAEV: Passage in the limit from the solution of a system of equations with derivatives containing a small parameter to the solution of degenerate equations with branching points	122
I. A. SULTANOVA: Effective error estimates for the mesh method of solving boundary value problems for the Laplace and Poisson equations in a rectangle and certain triangles	137
I. V. FRYAZINOV: Difference schemes for Poisson's equation in polar, cylindrical and spherical coordinate systems	153
L. G. NAPOLITANO and O. S. RYZHOV: An analogy between non-equilibrium and viscous inert flows at transonic velocities	166
V. I. KOSAREV: Calculation of steady supersonic gas flows with internal shock waves	208
V. V. TUMASONIS: A system of equivalent transformations of expressions	220
V. A. TUZOV: Optimal schemes of algorithms	232

Short Communications

KH. D. IKRAMOV: An inclusion theorem for eigenvalues of tridiagonal matrices	242
G. D. MAISTROVSKII: Convergence of the method of conjugate gradients	244
G. S. GANSHIN: Extension of the convergence region of Newton's method	249
A. V. GONCHARSKII, A. G. YAGOLA and A. S. LEONOV: Solution of two-dimensional Fredholm equations of the first kind with a kernel depending on the difference of arguments	253
S. D. DREIZIN-DUDCHENKO and M. K. LIKHT: Approximation by polygonal paths in a quadratic metric in the solution of integral equations of the first kind	261
A. M. DENISOV: Approximation of quasi-solutions of Fredholm's equation of the first kind with a kernel of special form	269
L. S. RAKOVSHCHIK: The compact approximation of normally solvable operators	277
N. S. BAKHVALOV: Optimization of methods of solving ordinary differential equations with strongly oscillating solutions	287
S. K. GODUNOV: Use of the energy integral to estimate the accuracy of approximate eigenvalues	293
YU. N. KARAMZIN: Difference schemes for elliptic equations with special boundary conditions	299
L. N. LITVINENKO: Numerical estimates of the error in the problem of diffraction by a grating	309
V. A. BASHKIN: Calculation of self-similar three-dimensional laminar boundary layer equations by a quasilinear method	317
YU. I. ZHURAVLEV and R. YUNUSOV: A method of improving the taxonomy algorithm by pattern recognition methods of the voting type	327
Book Reviews	334

Number 6

YU. I. MOKIN: A mesh analogue of the imbedding theorem for type W classes	1
N. JOACHIM LEHMANN: Aids to the optimal bounding of eigenvalues. A corollary to the Rayleigh-Ritz method	17
YU. G. EVTUSHENKO: Numerical methods for finding global extrema (case of a non-uniform mesh)	38
V. I. ANTIPOV: Distribution of a scalar resource over a flow graph	55
YU. P. BOGLAEV: Asymptotic solution in the critical case of a system of equations in which the derivative is multiplied by a small parameter	70

	PAGE
E. A. LAPSHIN: Statistical study of rounding errors in the numerical solution of an ordinary differential equation	82
N. N. KUZNETSOV: Weakly stable finite-difference approximations of differential equations	97
N. D. VVEDENSKAYA: Dependence of the smoothness of the solution of a degenerate parabolic equation on the dimensions of the region	117
V. B. ANDREEV: On stability with respect to the initial data of difference schemes for parabolic equations	129
N. A. TIKHONOV: The beats of harmonics in a non-linear dispersive medium and their use for determining the properties of the medium	146
N. Z. KAN: On the rotation of a rigid body with a cavity filled with viscous liquid	161
V. B. GLASKO: On the unique determination of the earths core structure from Rayleigh surface waves	173
YU. N. PAVLOVSKII: On the aggregation and design of hierarchical control structures for a class of complex systems	189
V. K. ZAKHAROV and O. V. SARMANOV: Multivariate distribution laws of the maxima of segments of random walk trajectories	201
L. I. GONCHAROVA: The system SNOBOL-A-BESM-6	229
Short Communications	
KH. D. IKRAMOV: The eigenvalues of principal submatrices of a normal matrix	240
HO. THUAN: A method of transforming tridiagonal block matrices	246
F. VAN AT: Reduction of a positive matrix to a quasistochastic matrix by a similar variation method	255
N. S. BAKHVALOV: The stable calculation of polynomial values	263
V. M. GLOGOVSKII, S. A. KATS and YA. I. KHURGIN: Systems of algebraic equations with random coefficients	272
G. S. GANSHIN: Calculation of the real roots of polynomials	283
V. A. VINOKUROV: Regularization by continuous mappings	288
G. N. PYKHTEEV: Some interpolation quadrature formulas for the evaluation of Cauchy type integrals and singular integrals of special form	292
L. A. OGANESYAN: A variational-difference scheme on a regular mesh for the Dirichlet problem	304
V. V. GADZHIEVA and V. F. KUROPATENKO: Some explicit difference schemes for hydro-dynamic equations	316
V. V. MARTYNYUK: Some applications of the closure operation in graph analysis	320
V. L. VEN: Aggregation of a dynamic input-output model	325
Book Reviews	335

AUTHOR INDEX

- ABRAMOV, A.A. 162 (1), 363 (1)
 ABRAMOV, S.A. 322 (1), 324 (4)*
 ADAMENKO, G.M. 55 (5)
 AGREST, M.M. 40 (5)
 AL'BER, YA.I. 263 (3)*
 ALEKSANDROV, L. 46 (1)
 ALEKSEEV, O.G. 336 (4)*
 ALEKSEEVA, S.M. 336 (4)*
 ALIEV, B. 246 (2)*
 ANDREEV, V.B. 129 (6)
 ANTIPOV, V.I. 55 (6)
 ARKHANGEL'SKII, N.A. 289 (1)
 ASTAPENKO, V.M. 203 (3)
 ASTRAKHANTSEV, G.P. 141 (1), 171 (2),
 168 (3)
 BAKHVALOV, N.S. 244 (4)*, 287 (5)*, 263 (6)*
 BASHKIN, V.A. 317 (5)*
 BELOLIPETSKII, A.A. 335 (1)
 BELOTSERKOVSKII, O.M. 241 (1)
 BERKOVICH, E.M. 58 (1), 45 (3), 71 (4), 69 (5)
 BOGLAEV, YU.P. 129 (1), 122 (5), 70 (6)
 BORISOV, V.M. 244 (3)
 BRUSOV, V.S. 17 (2)
 BUDAK, B.M. 67 (1), 45 (3), 71 (4)
 BUDNYAM, S. 286 (4)*
 BYRKIN, A.P. 308 (1)
 CAUGHEY, D.A. 205 (4)
 DANILIN, YU.M. 13 (1), 261 (4)*
 DAUGAVET, V.A. 1 (2)
 DAVYDOV, YU.M. 241 (1), 304 (4)*
 DEM'YANOV, V.F. 28 (2), 277 (3)*
 DENISIK, S.A. 314 (3)*
 DENISOV, A.M. 269 (5)*
 DIESPEROV, V.N. 272 (1)
 DOINIKOV, N.I. 182 (1)
 DREIZIN-DUDCHENKO, S.D. 261 (5)*
 DRYYA, M. 268 (2)*, 145 (3)*
 DYAKIN, V.V. 291 (4)*
 DZHISHKARIANI, A.V. 32 (3)
 EDINOVICH, A.A. 55 (5)
 EVTUSHENKO, YU.G. 97 (2), 38 (6)
 FEDORENKO, R.P. 68 (2), 89 (4)
 FEDUNOV, B.E. 100 (4)
 FINOGENOV, S.A. 155 (2)
 FRYAZINOV, I.V. 260 (2)*, 125 (3), 153 (5)
 GABASOV, R. 55 (5)
 GADZHIEVA, V.V. 316 (6)*
 GAIPOVA, A.N. 162 (1)
 GANSHIN, G.S. 249 (5)*, 283 (6)*
 GERMAN, V.A. 323 (3)*
 GLASKO, V.B. 173 (6)
 GLOGOVSKII, V.M. 272 (6)*
 GODUNOV, S.K. 183 (3), 293 (5)*
 GOLOMAZOV, M.M. 313 (4)*
 GONCHAROVA, L.I. 229 (6)
 GONCHARSKII, A.V. 253 (5)*
 GORELIK, V.A. 89 (5)
 GORELOV, V.P. 171 (1)
 GRACHEV, N.I. 97 (2)
 GRANOVSKII, B.L. 58 (1)
 IKRAMOV, KH.D. 242 (5)*, 240 (6)*
 IL'INSKII, A.S. 180 (4)
 IVANOV, I.N. 286 (4)*
 IVANOV, R.P. 45 (2), 67 (3), 268 (4)*
 IVANOV, V.I. 216 (1)
 IVANOV, V.P. 349 (1)
 IVANILOV, YU.P. 113 (3)
 KALITKIN, N.N. 311 (3)*
 KAN, N.Z. 161 (6)
 KARAMZIN, YU.N. 299 (5)*
 KARMA, O.O. 20 (3)
 KATS, S.A. 272 (6)*
 KHATSKEL, M.G. 327 (3)
 KHUDAK, YU.I. 36 (1)
 KHURGIN, YA.I. 272 (6)*
 KOCHETOV, I.I. 275 (2)*
 KOLESNICHENKO, E.G. 230 (2)
 KOSAREV, V.I. 208 (5)
 KOSHPARENOK, V.N. 222 (3)
 KRASILOV, A.A. 331 (4)*
 KSENOFONTOV, YU.I. 331 (4)*
 KUROPATENKO, V.F. 316 (6)*
 KUZNETSOV, P.I. 258 (4)*, 97 (6)
 LAPSHIN, E.A. 82 (6)
 LAVROV, S.S. 237 (2)
 LAZAROV, R.D. 166 (4)
 LEBEDEV, V.I. 155 (2)
 LEBEDEV, S.N. 314 (3)*
 LEHMANN, N.J. 17 (6)
 LEITES, V.L. 331 (4)*
 LEONOV, A.S. 253 (5)*
 LIKHT, M.K. 261 (5)*
 LITVINENKO, L.N. 309 (5)*
 LYUL'KA, V.A. 317 (3)*

Issue Number in Parenthesis
 *Short Communications

MAISTROVSKII, G.D. 244 (5)*
MALAMA, YU.G. 314 (3)*
MARKOV, V.G. 244 (3)
MARTYNYUK, V.V. 320 (6)*
MEZENTSEV, A.V. 86 (2)
MOKIN, YU.I. 253 (3)*, 1 (6)
MONASTYRNYI, P.I. 138 (4)
MOROZOV, V.A. 339 (1), 1 (3), 205 (4)*
MOROZOV, V.V. 85 (3)
MUKHARLYAMOV, R.G. 24 (4)

NAPOLITANO, L.G. 166 (5)
NAUMOV, N.P. 105 (5)
NEPOMYASCHII, P.A. 106 (1)

OGANESYAN, L.A. 304 (6)*
ORLOVSKII, S.A. 101 (3)
OSTROMOGIL'SKII, A.KH. 233 (1)

PALILOVA, S.F. 244 (3)
PASKONOV, V.M. 302 (3)*
PAVLOVSKII, YU.N. 189 (6)
PEREL'SHTEIN, E.A. 286 (4)*
PEVNYI, A.B. 253 (2)*
PIYASKII, S.A. 17 (2)
POLYAK, B.T. 1 (1), 53 (4)
POPOV, YU.P. 183 (2), 278 (4)*
POTAPOVA, A.F. 258 (3)*
PROPOI, A.I. 87 (1)
PSHENICHNYI, B.N. 13 (1)
PYKHTEEV, G.N. 292 (6)*
RAKHMATULINA, A.KH. 275 (2)*
RAKOVSHCHIK, L.S. 277 (5)*
REPIN, V.M. 200 (1)
RESHETNIKOV, V.S. 329 (3)
RYZHOV, O.S. 272 (1), 197 (2), 166 (5)

SAMARSKII, A.A. 109 (2), 125 (3)
SARMANOV, O.V. 201 (6)
SERDYUKOVA, S.I. 140 (2)
SHAPKIN, A.F. 285 (3)*
SHAPOT, D.V. 22 (5)
SHESTOPALOV, V.P. 222 (3)
SHIROKOVSKII, V.P. 291 (4)*
SHTOIAN, G. 149 (4)

SHUMEI, A.S. 232 (4)
SIGALOV, A.G. 1 (4)
SIMAKOV, A.S. 182 (1)
SIROTKIN, A.M. 281 (2)*
SLESAREV, I.S. 281 (2)*
SOBOL, I.M. 323 (3)*
SOLOGUB, V.G. 33 (4)
STEL'MASHUK, N.T. 357 (1)
STRELKOV, N.A. 190 (4)
SUKHAREV, A.G. 119 (4)
SULTANGAZIN, U.M. 183 (3)
SULTANOVA, I.A. 137 (5)
SVESHNIKOV, A.G. 180 (4)

TERENT'EV, E.D. 197 (2)
THUAN, HO. 246 (6)*
TIKHONOV, N.A. 190 (1), 146 (6)
TRAKHTENGERTS, E.A. 232 (4)
TSEREVA, L.S. 311 (3)*
TSURKOV, V.I. 218 (2), 296 (4)*
TUMASONIS, V.V. 220 (5)
TUZOV, V.A. 232 (5)
TYUGU, E.KH. 216 (4)

VAINIKKO, G.M. 292 (3)*
VAISLEIB, YU.V. 273 (3)*
VAN AT, F. 255 (6)*
VASIL'EV, F.P. 45 (2)
VEN, V.L. 335 (6)*
VINOKUROV, V.A. 26 (1), 1 (5), 288 (6)*
VOLCHINSKAYA, M.I. 264 (2)*
VORONKOVA, A.I. 156 (3)
VVEDENSKAYA, N.D. 117 (6)

YAGOLA, A.G. 253 (5)*
YUDUNA, A.S. 258 (4)*
YUFEREV, V.I. 171 (1)
YUNUSOV, R. 327 (5)*

ZAKHAROV, V.K. 201 (6)
ZHIDKOV, E.P. 286 (4)*
ZHILEIKIN, YA.M. 344 (1)
ZHURAVLEV, YU.I. 327 (5)*
ZIMIN, I.N. 113 (3)

Vol.
11
1971